

**IN THE CLAIMS:**

Please amend the claims as follows:

1 (Currently Amended): A spark plug comprising:

a central electrode;

a metal shell;

an alumina ceramic insulator disposed between the center electrode and the metal shell,

wherein at least part of the surface of the insulator is covered with a glaze layer comprising oxides,

wherein the glaze layer comprises:

1 mol% or less of a Pb component in terms of PbO;

35 to 55 mol% of a Si component in terms of SiO<sub>2</sub>;

15 to 35 mol% of a B component in terms of B<sub>2</sub>O<sub>3</sub>;

5 to 20 mol% of a Zn component in terms of ZnO;

0.5 to 20 mol% in total of at least one of Ba and Sr components in terms of BaO and SrO,

respectively; and

10 to 15 mol % in total of at least one of alkaline metal components of Na, K, and Li in terms of Na<sub>2</sub>O, K<sub>2</sub>O, and Li<sub>2</sub>O, respectively;

wherein the glaze layer contains the Li component and at least two alkaline metal components among the Li, Na and K components, and satisfies the relationship:  $0.2 < \frac{NLi_2O}{NR_2O} < 0.5$

when the at least two alkaline metal components are taken as R, NR<sub>2</sub>O is a

total mol content of the ~~at least two~~ alkaline metals in terms of a composition formula  $R_2O$ , and  $NLi_2O$  is a mol content of the Li component in terms of  $Li_2O$ .

2 (Currently Amended): A spark plug comprising:

a central electrode;

a metal shell;

an alumina ceramic insulator disposed between the center electrode and the metal shell,

wherein at least part of the surface of the insulator is covered with a glaze layer comprising oxides,

wherein the glaze layer comprises:

1 mol% or less of a Pb component in terms of  $PbO$ ;

35 to 55 mol% of a Si component in terms of  $SiO_2$ ;

15 to 35 mol% of a B component in terms of  $B_2O_3$ ;

5 to 20 mol% of a Zn component in terms of  $ZnO$ ;

0.5 to 20 mol% in total of at least one of Ba and Sr components in terms of  $BaO$  and  $SrO$ ,

respectively; and

~~10~~ 11 to 15 mol % in total of ~~at least one of~~ alkaline metal components of Na, K, and Li in terms of  $Na_2O$ ,  $K_2O$ , and  $Li_2O$ , respectively;

wherein the glaze layer contains ~~the K component and at least two alkaline metal components among the~~ Li, Na and K components, and satisfies the relationship:  $0.4 < \text{NK}_2\text{O}/\text{NR}_2\text{O} < 0.8$  when the ~~at least two~~ alkaline metal components are taken as R,  $\text{NR}_2\text{O}$  is a total mol content of the ~~at least two~~ alkaline metals in terms of a composition formula  $\text{R}_2\text{O}$ , and  $\text{NK}_2\text{O}$  is a mol content of the K component in terms of  $\text{K}_2\text{O}$ .

3. (Canceled).

Claim 4 (Currently Amended): The spark plug according to claim 1, wherein the glaze layer further comprises a B component and a Zn component in terms of  $\text{B}_2\text{O}_3$  and  $\text{ZnO}$ , respectively, in a total mol amount of  $\text{N}(\text{B}_2\text{O}_3 + \text{ZnO})$ ,

the glaze layer further comprises at least one of: an alkaline earth metal component RE, RE being at least one selected from Ba, Mg, Ca and Sr, in terms of a composition formula REO; and an alkaline metal component R, R including ~~being at least one selected from~~ Na, K and Li, in terms of a composition formula  $\text{R}_2\text{O}$ , in a total mol amount of  $\text{N}(\text{REO} + \text{R}_2\text{O})$ , and

the ratio:  $\text{N}(\text{B}_2\text{O}_3 + \text{ZnO})/\text{N}(\text{REO} + \text{R}_2\text{O})$  is 1.5 to 3.0.

Claim 5 (Original): The spark plug according to claim 1, wherein the glaze layer contains 8 to 30 mol% in total of the Zn component and the at least one of Ba and Sr components in terms of  $\text{ZnO}$ ,  $\text{BaO}$  and  $\text{SrO}$ , respectively.

Claim 6 (Original): The spark plug according to claim 1, wherein the glaze layer further comprises 0.5 to 5 mol% in total of at least one of Zr, Ti, Mg, Bi, Sn, Sb and P in terms of  $\text{ZrO}_2$ ,  $\text{TiO}_2$ ,  $\text{MgO}$ ,  $\text{Bi}_2\text{O}_3$ ,  $\text{SnO}_2$ ,  $\text{Sb}_2\text{O}_5$  and  $\text{P}_2\text{O}_5$ , respectively.

7. (Previously Amended) The spark plug according to claim 1, which compromises one of: a terminal metal fixture and the center electrode as one body, in a through hole of the insulator; and a terminal metal fixture provided separately from the center electrode via a conductive bonding layer, in a through hole of the insulator, and

an insulation resistant value is 200 M $\Omega$  or more, which is measured by keeping the whole of the spark plug at about 500°C and passing a current between the terminal metal fixture and the metal shell via the insulator.

Claim 8 (Original): The spark plug according to claim 1, wherein the insulator comprises an alumina insulating material containing 85 to 98 mol% of an Al component in terms of  $\text{Al}_2\text{O}_3$ , and the glaze layer has an average thermal expansion coefficient at the temperature ranging 20 to 350°C of  $5 \times 10^{-6}/^\circ\text{C}$  to  $8.5 \times 10^{-6}/^\circ\text{C}$ .

Claim 9 (Original): The spark plug according to claim 1, wherein the glaze layer has a softening point of 600 to 700°C.